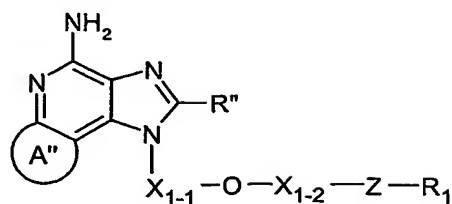


WHAT IS CLAIMED IS:

1. A compound of the Formula I:



I

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl- C_{1-10} alkylenyl,

heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl- C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl,

heteroaryl- C_{1-10} alkylenyl, heteroaryloxy- C_{1-10} alkylenyl,

C₁₋₁₀ alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C₁₋₁₀ alkylenyl substituted by one or more substituents independently selected from the group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino, C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl, C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

A" is a fused aryl ring or heteroaryl ring containing one heteroatom selected from the group consisting of N and S, wherein the aryl or heteroaryl ring is unsubstituted or substituted by one or more R groups, or a fused 5 to 7 membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R_A groups;

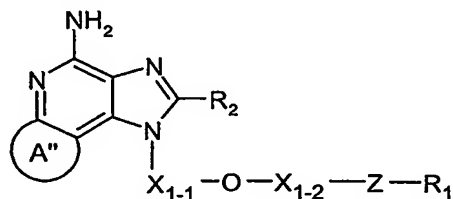
each R is independently selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

each R_A is independently selected from the group consisting of halogen, hydroxy, alkyl, alkenyl, haloalkyl, alkoxy, alkylthio, and -N(R₉)₂;

R₉ is selected from the group consisting of hydrogen and alkyl; and

R" is hydrogen or a non-interfering substituent; or a pharmaceutically acceptable salt thereof.

2. A compound of the Formula Ia:



Ia

wherein:

X₁₋₁ and X₁₋₂ are independently selected from the group consisting of

C₁₋₁₀ alkylene, C₄₋₁₀ alkenylene, and C₄₋₁₀ alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of -S-, -S(O)-, and -S(O)₂-;

R₁ is selected from the group consisting of:

- 5 C₁₋₁₀ alkyl,
- C₂₋₁₀ alkenyl,
- C₂₋₁₀ alkynyl,
- aryl,
- aryl-C₁₋₁₀ alkylenyl,
- 10 aryloxy-C₁₋₁₀ alkylenyl,
- C₁₋₁₀ alkylarylenyl,
- heteroaryl,
- heteroaryl-C₁₋₁₀ alkylenyl,
- heteroaryloxy-C₁₋₁₀ alkylenyl,
- 15 C₁₋₁₀ alkylheteroarylenyl,
- heterocyclyl,
- heterocyclyl-C₁₋₁₀ alkylenyl, and
- C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, aryl, aryl-C₁₋₁₀ alkylenyl,
- aryloxy-C₁₋₁₀ alkylenyl, C₁₋₁₀ alkylarylenyl, heteroaryl,
- 20 heteroaryl-C₁₋₁₀ alkylenyl, heteroaryloxy-C₁₋₁₀ alkylenyl,
- C₁₋₁₀ alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C₁₋₁₀ alkylenyl
- substituted by one or more substituents independently selected from the
- group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy-C₁₋₁₀ alkyl,
- halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl,
- 25 aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
- C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl, C₂₋₁₀
- alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
- C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a
- carbon atom;

30 A" is a fused aryl ring or heteroaryl ring containing one heteroatom selected from the group consisting of N and S, wherein the aryl or heteroaryl ring is unsubstituted or

substituted by one or more R groups, or a fused 5 to 7 membered saturated ring, optionally containing one heteroatom selected from the group consisting of N and S, and unsubstituted or substituted by one or more R_A groups;

each R is independently selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

each R_A is independently selected from the group consisting of halogen, hydroxy, alkyl, alkenyl, haloalkyl, alkoxy, alkylthio, and -N(R₉)₂;

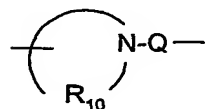
R₂ is selected from the group consisting of

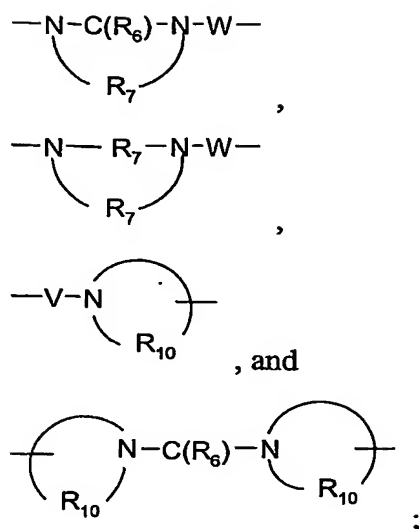
-R₄,
-X-R₄,
-X-Y-R₄, and
-X-R₅;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

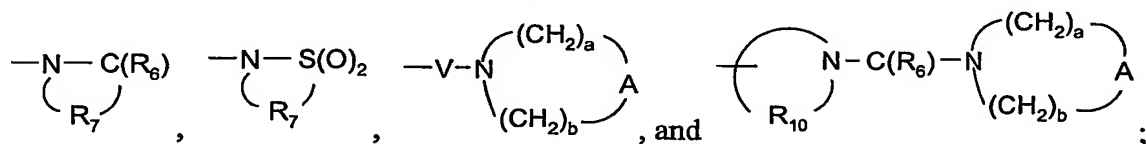
-O-,
-S(O)₀₋₂-,
-S(O)₂-N(R₈)-,
-C(R₆)-,
-C(R₆)-O-,
-O-C(R₆)-,
-O-C(O)-O-,
-N(R₈)-Q-,
-C(R₆)-N(R₈)-,
-O-C(R₆)-N(R₈)-,
-C(R₆)-N(OR₉)-,





5 R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted
10 or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl,
15 oxo;

R_5 is selected from the group consisting of:



R₆ is selected from the group consisting of =O and =S;

R₇ is C₂₋₇ alkylene;

20 R₈ is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R₉ is selected from the group consisting of hydrogen and alkyl;

R₁₀ is C₃₋₈ alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R₄)-;

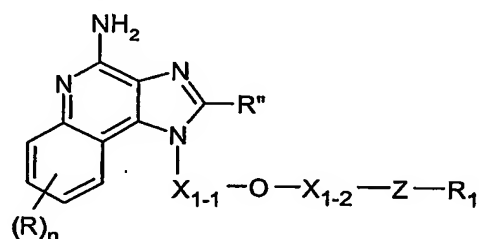
Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-, -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-, -N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7; or a pharmaceutically acceptable salt thereof.

3. A compound of the Formula II:



II

wherein:

X₁₋₁ and X₁₋₂ are independently selected from the group consisting of C₁₋₁₀ alkylene, C₄₋₁₀ alkenylene, and C₄₋₁₀ alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of -S-, -S(O)-, and -S(O)₂-;

R₁ is selected from the group consisting of:

C₁₋₁₀ alkyl,
 C₂₋₁₀ alkenyl,
 C₂₋₁₀ alkynyl,
 aryl,
 aryl-C₁₋₁₀ alkylenyl,
 aryloxy-C₁₋₁₀ alkylenyl,
 C₁₋₁₀ alkylarylenyl,
 heteroaryl,

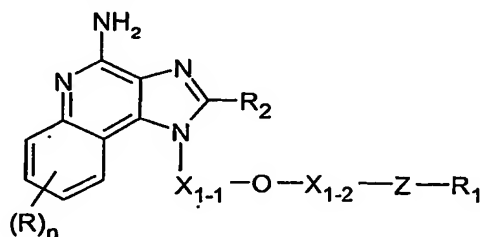
heteroaryl-C₁₋₁₀ alkylenyl,
heteroaryloxy-C₁₋₁₀ alkylenyl,
C₁₋₁₀ alkylheteroarylenyl,
heterocyclyl,
heterocyclyl-C₁₋₁₀ alkylenyl, and
C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, aryl, aryl-C₁₋₁₀ alkylenyl,
aryloxy-C₁₋₁₀ alkylenyl, C₁₋₁₀ alkylarylenyl, heteroaryl,
heteroaryl-C₁₋₁₀ alkylenyl, heteroaryloxy-C₁₋₁₀ alkylenyl,
C₁₋₁₀ alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C₁₋₁₀ alkylenyl
substituted by one or more substituents independently selected from the
group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy-C₁₋₁₀ alkyl,
halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl,
aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl, C₂₋₁₀
alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a
carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and
trifluoromethyl;

n is 0 to 4; and

R" is hydrogen or a non-interfering substituent;
or a pharmaceutically acceptable salt thereof.

4. A compound of the Formula IIa:



IIa

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl- C_{1-10} alkylenyl,

heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl- C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl,

heteroaryl- C_{1-10} alkylenyl, heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl- C_{1-10} alkylenyl

substituted by one or more substituents independently selected from the

group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy- C_{1-10} alkyl,

halo- C_{1-10} alkyl, halo- C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl,

aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,

C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10}

alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl,

C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a

carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

n is 0 to 4;

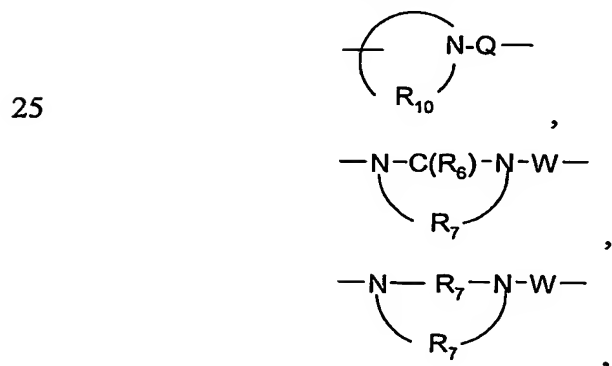
R₂ is selected from the group consisting of

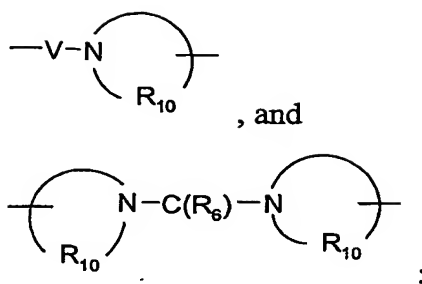
- 5 -R₄,
 -X-R₄,
 -X-Y-R₄, and
 -X-R₅;

10 X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

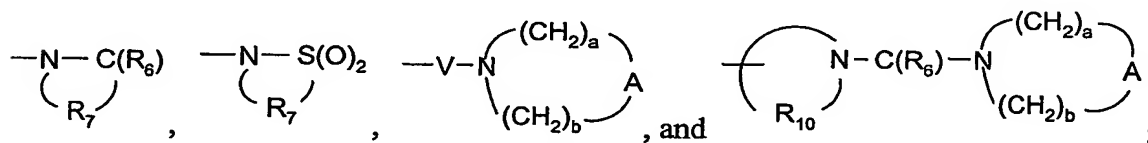
- 15 -O-,
 -S(O)₀₋₂-,
 -S(O)₂-N(R₈)-,
 -C(R₆)-,
 -C(R₆)-O-,
 -O-C(R₆)-,
 20 -O-C(O)-O-,
 -N(R₈)-Q-,
 -C(R₆)-N(R₈)-,
 -O-C(R₆)-N(R₈)-,
 -C(R₆)-N(OR₉)-,





R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl,
 arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl,
 heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl,
 alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl,
 heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted
 or substituted by one or more substituents independently selected from the group
 consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy,
 mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy,
 heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino,
 (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl,
 oxo;

R₅ is selected from the group consisting of:



R₆ is selected from the group consisting of =O and =S;

R₇ is C₂₋₇ alkylene;

R₈ is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R₉ is selected from the group consisting of hydrogen and alkyl;

R₁₀ is C₃₋₈ alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R₄)-;

Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-, -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-,

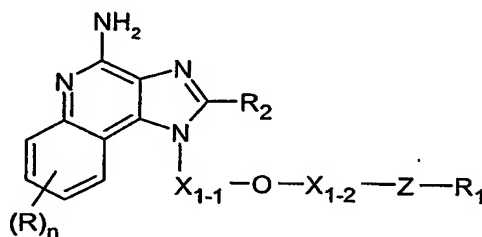
$-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

W is selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that $a + b \leq 7$;
or a pharmaceutically acceptable salt thereof.

5

5. A compound of the Formula IIa:



IIa

wherein:

10 X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

- 15 C_{1-10} alkyl,
 C_{2-10} alkenyl,
 C_{2-10} alkynyl,
aryl,
aryl- C_{1-10} alkylenyl,
20 aryloxy- C_{1-10} alkylenyl,
 C_{1-10} alkylarylenyl,
heteroaryl,
heteroaryl- C_{1-10} alkylenyl,
heteroaryloxy- C_{1-10} alkylenyl,
25 C_{1-10} alkylheteroarylenyl,
heterocyclyl,
heterocyclyl- C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl- C_{1-10} alkylenyl,
 aryloxy- C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl,
 heteroaryl- C_{1-10} alkylenyl, heteroaryloxy- C_{1-10} alkylenyl,
 C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl- C_{1-10} alkylenyl
 substituted by one or more substituents independently selected from the
 group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy- C_{1-10} alkyl,
 halo- C_{1-10} alkyl, halo- C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl,
 aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
 C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10}
 alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
 C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a
 carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

n is 0 to 4;

R_2 is selected from the group consisting of

- R_4 ,

-X- R_4 ,

-X-Y- R_4 , and

-X- R_5 ;

X is selected from the group consisting of alkylene, alkenylene, alkynylene,
 arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and
 alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene,
 or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

-S(O)₀₋₂-,

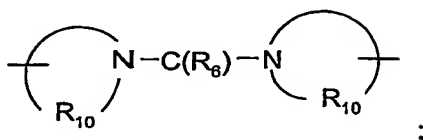
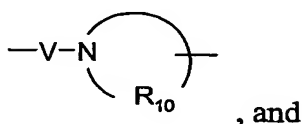
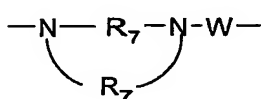
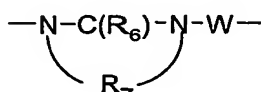
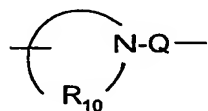
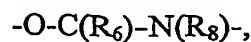
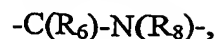
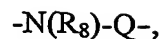
-S(O)₂-N(R_8)-,

-C(R_6)-,

-C(R_6)-O-,

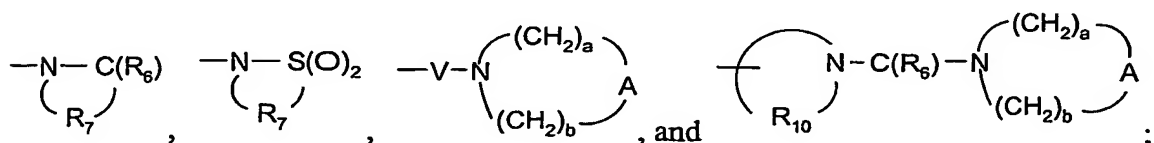
-O-C(R_6)-,

-O-C(O)-O-,



R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



R_6 is selected from the group consisting of $=O$ and $=S$;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of $-O-$, $-C(O)-$, $-S(O)_{0-2}-$, $-CH_2-$, and $-N(R_4)-$;

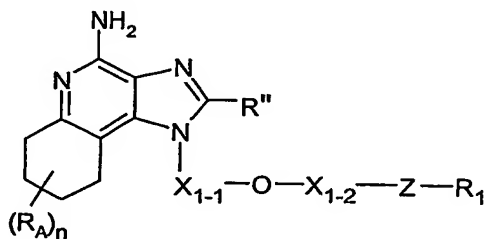
Q is selected from the group consisting of a bond, $-C(R_6)-$, $-C(R_6)-C(R_6)-$, $-S(O)_2-$, $-C(R_6)-N(R_8)-W-$, $-S(O)_2-N(R_8)-$, $-C(R_6)-O-$, and $-C(R_6)-N(OR_9)-$;

V is selected from the group consisting of $-C(R_6)-$, $-O-C(R_6)-$, $-N(R_8)-C(R_6)-$, and $-S(O)_2-$;

W is selected from the group consisting of a bond, $-C(O)-$, and $-S(O)_2-$; and

a and b are independently integers from 1 to 6 with the proviso that $a + b$ is ≤ 7 ;
or a pharmaceutically acceptable salt thereof.

6. A compound of the Formula III:



III

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C₂₋₁₀ alkynyl,
aryl,
aryl-C₁₋₁₀ alkylenyl,
aryloxy-C₁₋₁₀ alkylenyl,
5 C₁₋₁₀ alkylarylenyl,
heteroaryl,
heteroaryl-C₁₋₁₀ alkylenyl,
heteroaryloxy-C₁₋₁₀ alkylenyl,
C₁₋₁₀ alkylheteroarylenyl,
10 heterocyclyl,
heterocyclyl-C₁₋₁₀ alkylenyl, and
C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, aryl, aryl-C₁₋₁₀ alkylenyl,
aryloxy-C₁₋₁₀ alkylenyl, C₁₋₁₀ alkylarylenyl, heteroaryl,
heteroaryl-C₁₋₁₀ alkylenyl, heteroaryloxy-C₁₋₁₀ alkylenyl,
15 C₁₋₁₀ alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C₁₋₁₀ alkylenyl
substituted by one or more substituents independently selected from the
group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy-C₁₋₁₀ alkyl,
halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl,
aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
20 C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl,
C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a
carbon atom;

R_A is selected from the group consisting of:

25 halogen,
hydroxy,
alkyl,
alkenyl,
haloalkyl,
30 alkoxy,
alkylthio, and



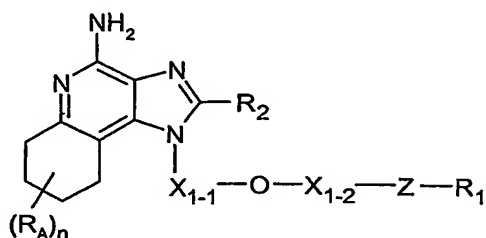
n is 0 to 4; and

R" is hydrogen or a non-interfering substituent;

or a pharmaceutically acceptable salt thereof.

5

7. A compound of the formula IIIa:



IIIa

wherein:

10 X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

- 15 C_{1-10} alkyl,
 C_{2-10} alkenyl,
 C_{2-10} alkynyl,
aryl,
aryl- C_{1-10} alkylenyl,
20 aryloxy- C_{1-10} alkylenyl,
 C_{1-10} alkylarylenyl,
heteroaryl,
heteroaryl- C_{1-10} alkylenyl,
heteroaryloxy- C_{1-10} alkylenyl,
25 C_{1-10} alkylheteroarylenyl,
heterocyclyl,
heterocyclyl- C_{1-10} alkylenyl, and
 C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl- C_{1-10} alkylenyl,

aryloxy-C₁₋₁₀ alkylenyl, C₁₋₁₀ alkylarylenyl, heteroaryl,
 heteroaryl-C₁₋₁₀ alkylenyl, heteroaryloxy-C₁₋₁₀ alkylenyl,
 C₁₋₁₀ alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C₁₋₁₀ alkylenyl
 substituted by one or more substituents independently selected from the
 group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy-C₁₋₁₀ alkyl,
 halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl,
 aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
 C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl, C₂₋₁₀
 alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
 C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a
 carbon atom;

R_A is selected from the group consisting of:

halogen,
 hydroxy,
 alkyl,
 alkenyl,
 haloalkyl,
 alkoxy,
 alkylthio, and
 -N(R₉)₂;

n is 0 to 4;

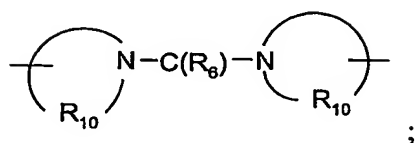
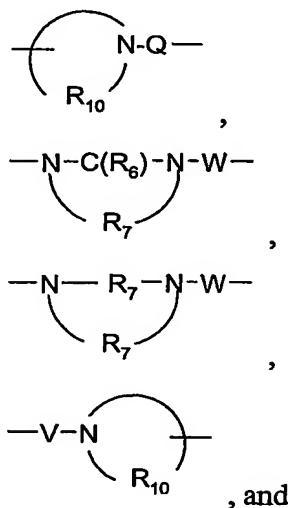
R₂ is selected from the group consisting of

-R₄,
 -X-R₄,
 -X-Y-R₄, and
 -X-R₅;

X is selected from the group consisting of alkylene, alkenylene, alkynylene,
 arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and
 alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene,
 or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

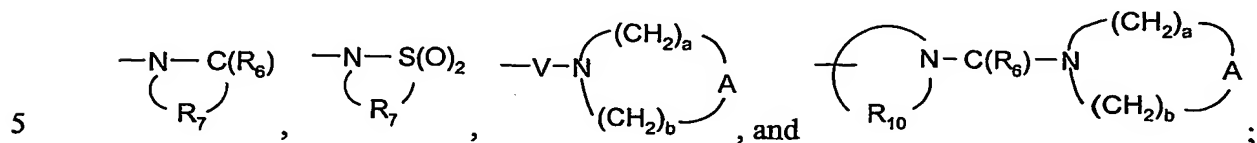
-O-,
 -S(O)₀₋₂-,
 -S(O)₂-N(R₈)-,
 -C(R₆)-,
 -C(R₆)-O-,
 -O-C(R₆)-,
 -O-C(O)-O-,
 -N(R₈)-Q-,
 -C(R₆)-N(R₈)-,
 -O-C(R₆)-N(R₈)-,
 -C(R₆)-N(OR₉)-,



R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy,

heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



R_6 is selected from the group consisting of =O and =S;

R₇ is C₂₋₇ alkylene;

R₈ is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

10 R₉ is selected from the group consisting of hydrogen and alkyl;

R₁₀ is C₃₋₈ alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R₄)-;

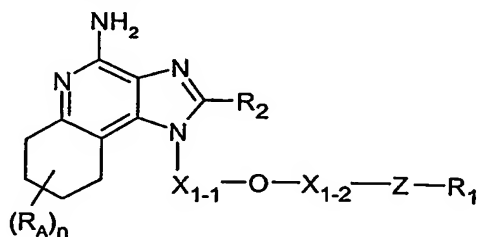
Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-, 15 -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-, -N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and

a and b are independently integers from 1 to 6 with the proviso that $a + b$ is ≤ 7 ;
or a pharmaceutically acceptable salt thereof.

8. A compound of the Formula IIIa:



IIIa

25 wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl- C_{1-10} alkylenyl,

heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl- C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl,

heteroaryl- C_{1-10} alkylenyl, heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl- C_{1-10} alkylenyl

substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy- C_{1-10} alkyl,

halo- C_{1-10} alkyl, halo- C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl,

aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,

C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl,

C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R_A is selected from the group consisting of:

halogen,
hydroxy,
alkyl,
alkenyl,
haloalkyl,
alkoxy,
alkylthio, and
-N(R₉)₂;

n is 0 to 4;

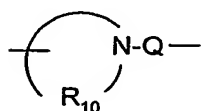
R₂ is selected from the group consisting of

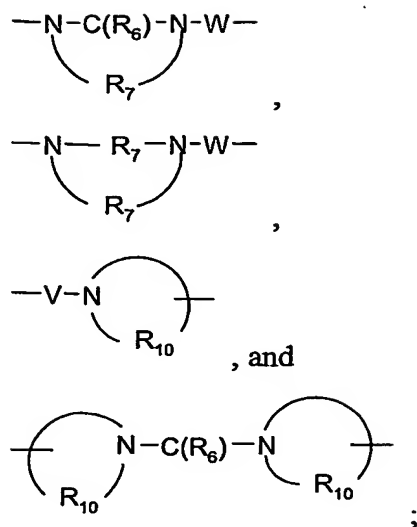
-R₄,
-X-R₄,
-X-Y-R₄, and
-X-R₅;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

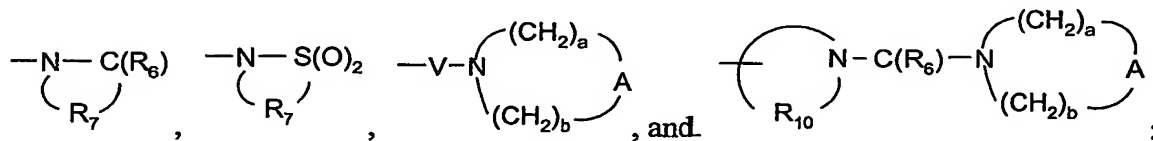
-S(O)₀₋₂-,
-S(O)₂-N(R₈)-,
-C(R₆)-,
-C(R₆)-O-,
-O-C(R₆)-,
-O-C(O)-O-,
-N(R₈)-Q-,
-C(R₆)-N(R₈)-,
-O-C(R₆)-N(R₈)-,
-C(R₆)-N(OR₉)-,





5 R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group
 10 consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl,
 15 oxo;

R_5 is selected from the group consisting of:



R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

20 R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R₄)-;

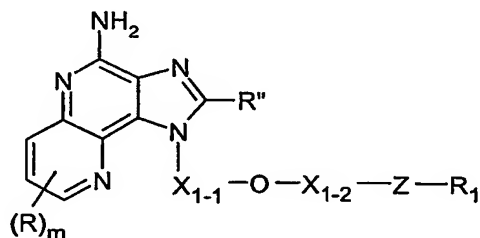
Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-, -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-, -N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-;

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7; or a pharmaceutically acceptable salt thereof.

9. A compound of the Formula IV:



IV

wherein:

X₁₋₁ and X₁₋₂ are independently selected from the group consisting of C₁₋₁₀ alkylene, C₄₋₁₀ alkenylene, and C₄₋₁₀ alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of -S-, -S(O)-, and -S(O)₂-;

R₁ is selected from the group consisting of:

- C₁₋₁₀ alkyl,
- C₂₋₁₀ alkenyl,
- C₂₋₁₀ alkynyl,
- aryl,
- aryl-C₁₋₁₀ alkylenyl,
- aryloxy-C₁₋₁₀ alkylenyl,
- C₁₋₁₀ alkylarylenyl,
- heteroaryl,

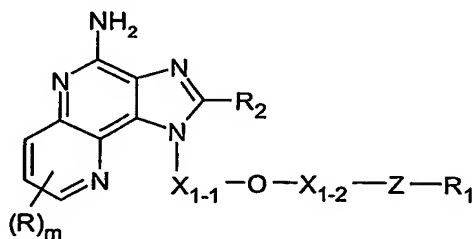
heteroaryl-C₁₋₁₀ alkylenyl,
heteroaryloxy-C₁₋₁₀ alkylenyl,
C₁₋₁₀ alkylheteroarylenyl,
heterocyclyl,
5 heterocyclyl-C₁₋₁₀ alkylenyl, and
C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, aryl, aryl-C₁₋₁₀ alkylenyl,
aryloxy-C₁₋₁₀ alkylenyl, C₁₋₁₀ alkylarylenyl, heteroaryl,
heteroaryl-C₁₋₁₀ alkylenyl, heteroaryloxy-C₁₋₁₀ alkylenyl,
C₁₋₁₀ alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C₁₋₁₀ alkylenyl
10 substituted by one or more substituents independently selected from the
group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy-C₁₋₁₀ alkyl,
halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl,
aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl, C₂₋₁₀
15 alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a
carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and
trifluoromethyl;

m is 0 to 3; and

R" is hydrogen or a non-interfering substituent;
or a pharmaceutically acceptable salt thereof.

10. A compound of the Formula IVa:



IVa

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

Z is selected from the group consisting of $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl- C_{1-10} alkylenyl,

heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl- C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl,

heteroaryl- C_{1-10} alkylenyl, heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl- C_{1-10} alkylenyl substituted by one or more substituents independently selected from the

group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy- C_{1-10} alkyl,

halo- C_{1-10} alkyl, halo- C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,

C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl,

C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

m is 0 to 3;

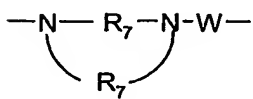
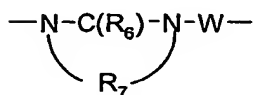
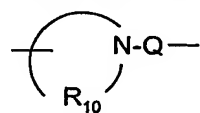
R₂ is selected from the group consisting of

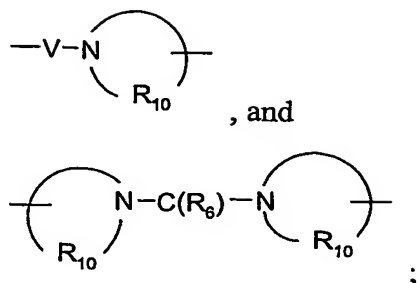
-R₄,
 -X-R₄,
 -X-Y-R₄, and
 -X-R₅;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

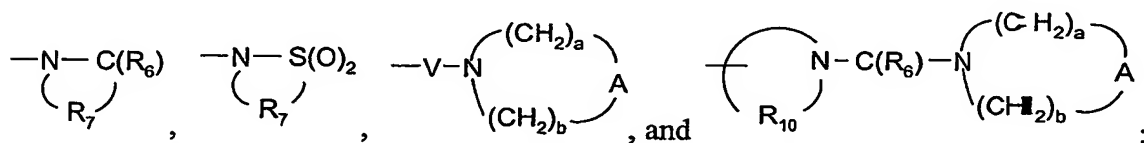
-O-,
 -S(O)₀₋₂-,
 -S(O)₂-N(R₈)-,
 -C(R₆)-,
 -C(R₆)-O-,
 -O-C(R₆)-,
 -O-C(O)-O-,
 -N(R₈)-Q-,
 -C(R₆)-N(R₈)-,
 -O-C(R₆)-N(R₈)-,
 -C(R₆)-N(OR₉)-,





R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl,
 arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl,
 5 heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl,
 alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl,
 heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted
 or substituted by one or more substituents independently selected from the group
 consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy,
 10 mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy,
 heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino,
 (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl,
 oxo;

R₅ is selected from the group consisting of:



R₆ is selected from the group consisting of =O and =S;

R₇ is C₂₋₇ alkylene;

R₈ is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and
 arylalkylenyl;

R₉ is selected from the group consisting of hydrogen and alkyl;

R₁₀ is C₃₋₈ alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and
 -N(R₄)-;

Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-,
 25 -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-,

-N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;
or a pharmaceutically acceptable salt thereof.

- 5
11. The compound or salt of claim 9 or claim 10 wherein m is 0.
12. The compound or salt of any one of claims 3 through 8 wherein n is 0.
- 10 13. The compound or salt of any one of claims 1, 3, 6, 9, 11 as dependent on claim 9, or 12 as dependent on claim 3 or claim 6 wherein R" is hydrogen, alkyl, hydroxyalkylenyl, or alkoxyalkylenyl.
14. The compound or salt of claim 13 wherein R" is hydrogen, methyl, ethyl, propyl,
15 butyl, 2-hydroxyethyl, hydroxymethyl, 2-methoxyethyl, or ethoxymethyl.
15. The compound or salt of any one of claims 2, 4, 5, 7, 8, 10, 11 as dependent on claim 10, or 12 as dependent on any one of claims 4, 5, 7, or 8 wherein R₂ is hydrogen, alkyl, hydroxyalkylenyl, or alkoxyalkylenyl.
- 20 16. The compound or salt of claim 15 wherein R₂ is hydrogen, methyl, ethyl, propyl, butyl, 2-hydroxyethyl, hydroxymethyl, 2-methoxyethyl, or ethoxymethyl.
17. The compound or salt of any one of claims 2, 4, 5, 7, 8, 10, 11 as dependent on
25 claim 10, or 12 as dependent on any one of claims 4, 5, 7, or 8 wherein X is -(CH₂)₁₋₃-.
18. The compound or salt of any one of claims 1 through 17 wherein Z is -S(O)₂-.
- 30 19. The compound or salt of any one of claims 1 through 17 wherein Z is -S(O)-.

20. The compound or salt of any one of claims 1 through 17 wherein Z is -S-.

21. The compound or salt of any one of claims 1 through 20 wherein R₁ is linear or branched C₁₋₄ alkyl, aryl, or 5 to 10 membered heteroaryl containing one or two heteroatoms, wherein the alkyl, aryl, or heteroaryl group may be unsubstituted or substituted with one or more substituents.

22. The compound or salt of claim 21 wherein R₁ is methyl, ethyl, 1-propyl, 2-propyl, 2-methylpropyl, 2-hydroxy-2-methylpropyl, phenyl, -4chlorophenyl, or 4-fluorophenyl.

23. The compound or salt of any one of claims 1 through 22 wherein X₁₋₁ and X₁₋₂ are independently selected from C₂₋₇ alkylene groups.

24. The compound or salt of claim 23 wherein X₁₋₁ is -(CH₂)₂₋₄-, -CH₂-C(CH₃)₂-, or -CH₂-cyclic(CH₂)₃₋₆-.

25. The compound or salt of claim 23 or claim 24 wherein X₁₋₂ is -(CH₂)₂- or -(CH₂)₃-.

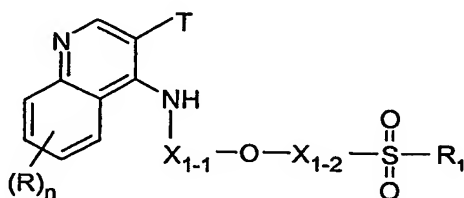
26. A pharmaceutical composition comprising a therapeutically effective amount of a compound or salt of any one of claims 1 through 25 in combination with a pharmaceutically acceptable carrier.

27. A method of inducing cytokine biosynthesis in an animal comprising administering an effective amount of a compound or salt of any one of claims 1 through 25 to the animal.

28. A method of treating a viral disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 25 to the animal.

29. A method of treating a neoplastic disease in an animal in need thereof comprising administering a therapeutically effective amount of a compound or salt of any one of claims 1 through 25 to the animal.

30. A compound of Formula V:



V

wherein:

T is -NH₂ or -NO₂;

X₁₋₁ and X₁₋₂ are independently selected from the group consisting of C₁₋₁₀ alkylene, C₄₋₁₀ alkenylene, and C₄₋₁₀ alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

R₁ is selected from the group consisting of:

C₁₋₁₀ alkyl,

C₂₋₁₀ alkenyl,

C₂₋₁₀ alkynyl,

aryl,

aryl-C₁₋₁₀ alkylenyl,

aryloxy-C₁₋₁₀ alkylenyl,

C₁₋₁₀ alkylarylenyl,

heteroaryl,

heteroaryl-C₁₋₁₀ alkylenyl,

heteroaryloxy-C₁₋₁₀ alkylenyl,

C₁₋₁₀ alkylheteroarylenyl,

heterocyclyl,

heterocyclyl-C₁₋₁₀ alkylenyl, and

C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, aryl, aryl-C₁₋₁₀ alkylenyl,

aryloxy-C₁₋₁₀ alkylenyl, C₁₋₁₀ alkylarylenyl, heteroaryl,

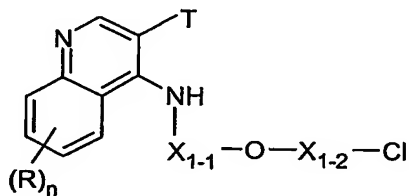
heteroaryl- C_{1-10} alkylenyl, heteroaryloxy- C_{1-10} alkylenyl,
 C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl- C_{1-10} alkylenyl
 substituted by one or more substituents independently selected from the
 group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy- C_{1-10} alkyl,
 halo- C_{1-10} alkyl, halo- C_{1-10} alkoxy, halogen, nitro, hydroxy, cyano, aryl,
 aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
 C_{1-10} alkylamino, di(C_{1-10} alkyl)amino, and in the case of C_{1-10} alkyl, C_{2-10}
 alkenyl, C_{2-10} alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
 C_{1-10} alkylheteroarylenyl, and heterocyclyl are attached to Z through a
 carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and
 trifluoromethyl; and

n is 0 to 4;

or a pharmaceutically acceptable salt thereof.

31. A compound of Formula VI:



VI

wherein:

T is $-NH_2$ or $-NO_2$;

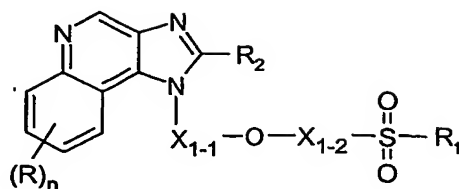
X_{1-1} and X_{1-2} are independently selected from the group consisting of
 C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms
 of alkenylene and alkynylene are tetrahedral;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and
 trifluoromethyl; and

n is 0 to 4;

or a pharmaceutically acceptable salt thereof.

32. A compound of Formula VIII:



VIII

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl- C_{1-10} alkylenyl,

heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl,

heterocyclyl,

heterocyclyl- C_{1-10} alkylenyl, and

C_{1-10} alkyl, C_{2-10} alkenyl, C_{2-10} alkynyl, aryl, aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl, C_{1-10} alkylarylenyl, heteroaryl,

heteroaryl- C_{1-10} alkylenyl, heteroaryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylheteroarylenyl, heterocyclyl, and heterocyclyl- C_{1-10} alkylenyl

substituted by one or more substituents independently selected from the group consisting of C_{1-10} alkyl, C_{1-10} alkoxy, hydroxy- C_{1-10} alkyl,

halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl, aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino, C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl, C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

n is 0 to 4;

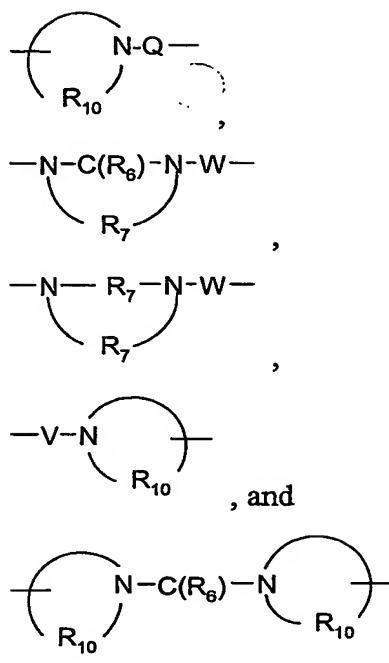
R₂ is selected from the group consisting of

-R₄,
-X-R₄,
-X-Y-R₄, and
-X-R₅;

X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

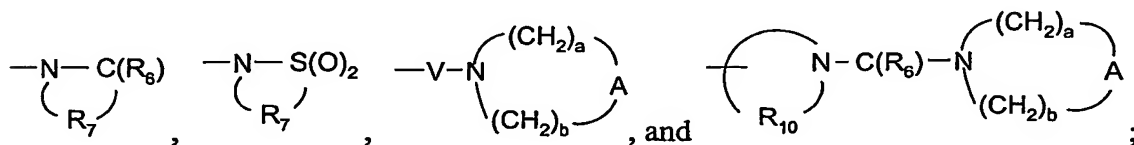
Y is selected from the group consisting of:

-O-,
-S(O)₀₋₂-,
-S(O)₂-N(R₈)-,
-C(R₆)-,
-C(R₆)-O-,
-O-C(R₆)-,
-O-C(O)-O-,
-N(R₈)-Q-,
-C(R₆)-N(R₈)-,
-O-C(R₆)-N(R₈)-,
-C(R₆)-N(OR₉)-,



R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



R_6 is selected from the group consisting of $=\text{O}$ and $=\text{S}$;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R₄)-;

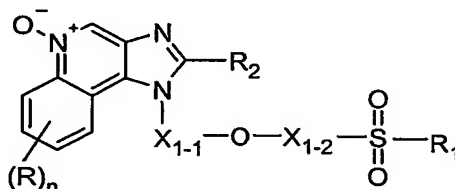
5 Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-, -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-, -N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and

10 a and b are independently integers from 1 to 6 with the proviso that $a + b \leq 7$; or a pharmaceutically acceptable salt thereof.

33. A compound of Formula IX:



IX

wherein:

X_{1-1} and X_{1-2} are independently selected from the group consisting of C_{1-10} alkylene, C_{4-10} alkenylene, and C_{4-10} alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

20 R_1 is selected from the group consisting of:

C_{1-10} alkyl,

C_{2-10} alkenyl,

C_{2-10} alkynyl,

aryl,

25 aryl- C_{1-10} alkylenyl,

aryloxy- C_{1-10} alkylenyl,

C_{1-10} alkylarylenyl,

heteroaryl,

heteroaryl-C₁₋₁₀ alkylenyl,
heteroaryloxy-C₁₋₁₀ alkylenyl,
C₁₋₁₀ alkylheteroarylenyl,
heterocyclyl,
5 heterocyclyl-C₁₋₁₀ alkylenyl, and
C₁₋₁₀ alkyl, C₂₋₁₀ alkenyl, C₂₋₁₀ alkynyl, aryl, aryl-C₁₋₁₀ alkylenyl,
aryloxy-C₁₋₁₀ alkylenyl, C₁₋₁₀ alkylarylenyl, heteroaryl,
heteroaryl-C₁₋₁₀ alkylenyl, heteroaryloxy-C₁₋₁₀ alkylenyl,
C₁₋₁₀ alkylheteroarylenyl, heterocyclyl, and heterocyclyl-C₁₋₁₀ alkylenyl
10 substituted by one or more substituents independently selected from the
group consisting of C₁₋₁₀ alkyl, C₁₋₁₀ alkoxy, hydroxy-C₁₋₁₀ alkyl,
halo-C₁₋₁₀ alkyl, halo-C₁₋₁₀ alkoxy, halogen, nitro, hydroxy, cyano, aryl,
aryloxy, heteroaryl, heteroaryloxy, heterocyclyl, amino,
C₁₋₁₀ alkylamino, di(C₁₋₁₀ alkyl)amino, and in the case of C₁₋₁₀ alkyl, C₂₋₁₀
15 alkenyl, C₂₋₁₀ alkynyl, and heterocyclyl, oxo; wherein heteroaryl,
C₁₋₁₀ alkylheteroarylenyl, and heterocyclyl are attached to Z through a
carbon atom;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and
trifluoromethyl;

20 n is 0 to 4;

R₂ is selected from the group consisting of

-R₄,
-X-R₄,
-X-Y-R₄, and
25 -X-R₅;

X is selected from the group consisting of alkylene, alkenylene, alkynylene,
arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and
alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene,
or heterocyclylene, and optionally interrupted by one or more -O- groups;

30 Y is selected from the group consisting of:

-O-,

-S(O)₀₋₂-,

-S(O)₂-N(R₈)-,

-C(R₆)-,

-C(R₆)-O-,

5

-O-C(R₆)-,

-O-C(O)-O-,

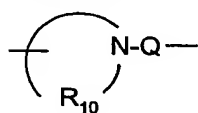
-N(R₈)-Q-,

-C(R₆)-N(R₈)-,

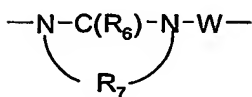
-O-C(R₆)-N(R₈)-,

10

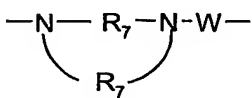
-C(R₆)-N(OR₉)-,



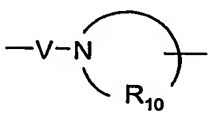
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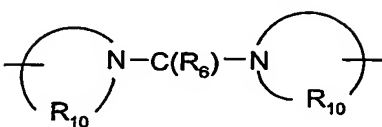
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,



, and



;

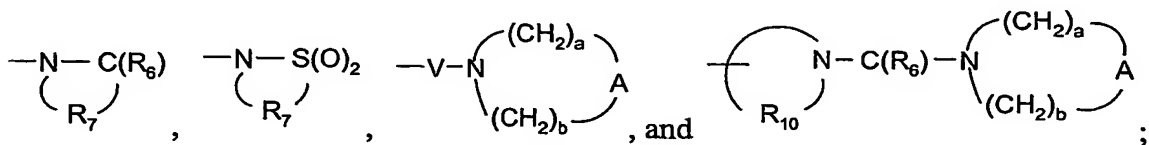
15

20

R₄ is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino,

(dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R₅ is selected from the group consisting of:



R₆ is selected from the group consisting of =O and =S;

R₇ is C₂₋₇ alkylene;

R₈ is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R₉ is selected from the group consisting of hydrogen and alkyl;

R₁₀ is C₃₋₈ alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R₄)-;

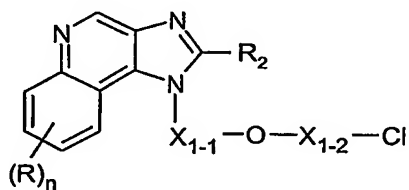
Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-, -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-, -N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7.

34. A compound of Formula XXIIIa:



XXIIIa

wherein:

X₁₋₁ and X₁₋₂ are independently selected from the group consisting of C₁₋₁₀ alkylene, C₄₋₁₀ alkenylene, and C₄₋₁₀ alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

n is 0 to 4;

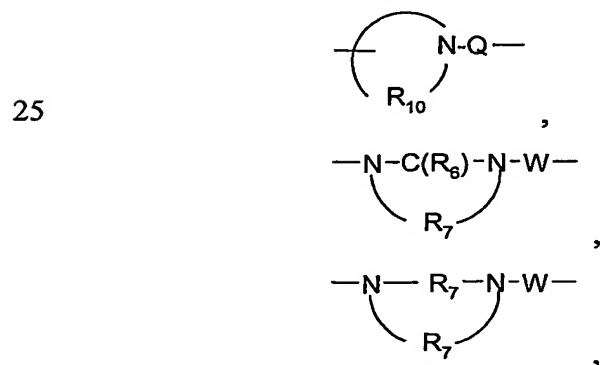
R₂ is selected from the group consisting of

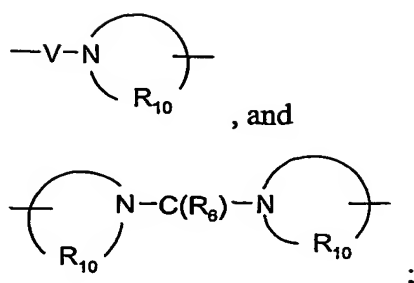
- 5 -R₄,
 -X-R₄,
 -X-Y-R₄, and
 -X-R₅;

10 X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

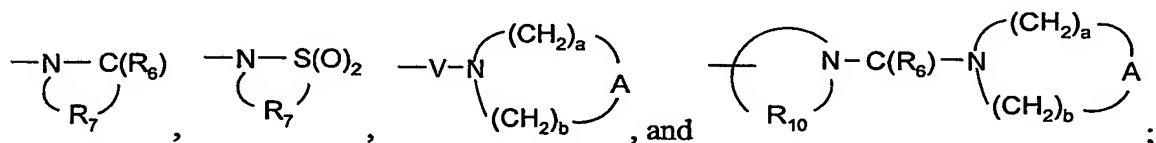
- 15 -O-,
 -S(O)₀₋₂-,
 -S(O)₂-N(R₈)-,
 -C(R₆)-,
 -C(R₆)-O-,
 -O-C(R₆)-,
 20 -O-C(O)-O-,
 -N(R₈)-Q-,
 -C(R₆)-N(R₈)-,
 -O-C(R₆)-N(R₈)-,
 -C(R₆)-N(OR₉)-,





R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R_4)-;

Q is selected from the group consisting of a bond, -C(R_6)-, -C(R_6)-C(R_6)-, -S(O)₂-, -C(R_6)-N(R_8)-W-, -S(O)₂-N(R_8)-, -C(R_6)-O-, and -C(R_6)-N(OR₉)-;

V is selected from the group consisting of -C(R_6)-, -O-C(R_6)-,

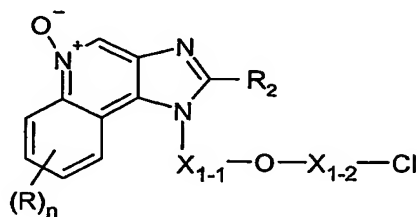
-N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;
or a pharmaceutically acceptable salt thereof.

5

35. A compound of Formula XXV:



XXV

wherein:

10 X₁₋₁ and X₁₋₂ are independently selected from the group consisting of C₁₋₁₀ alkylene, C₄₋₁₀ alkenylene, and C₄₋₁₀ alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

15 n is 0 to 4;

R₂ is selected from the group consisting of

-R₄,

-X-R₄,

-X-Y-R₄, and

20 -X-R₅;

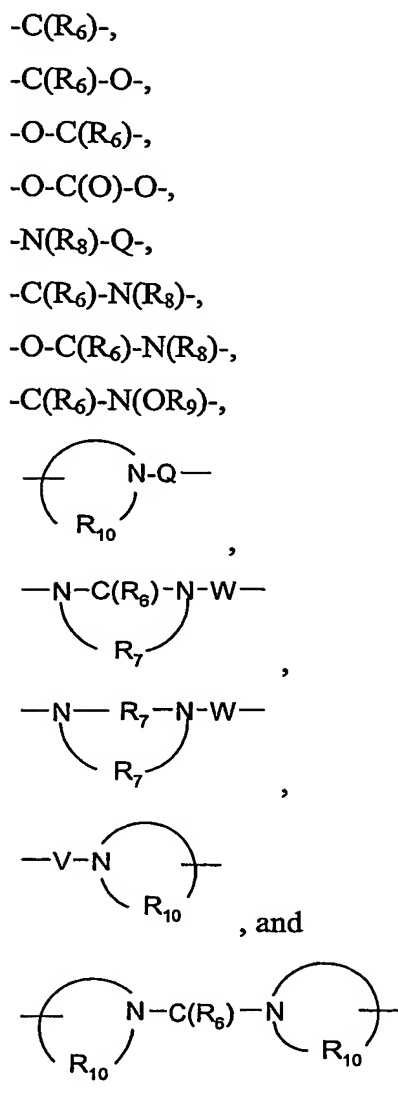
X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

25 Y is selected from the group consisting of:

-O-,

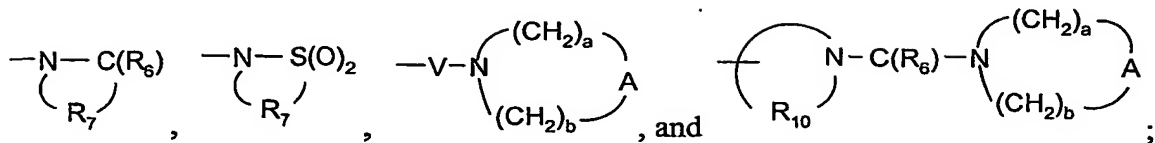
-S(O)₀₋₂-,

-S(O)₂-N(R₈)-,



R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R₅ is selected from the group consisting of:



R₆ is selected from the group consisting of =O and =S;

R₇ is C₂₋₇ alkylene;

5 R₈ is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R₉ is selected from the group consisting of hydrogen and alkyl;

R₁₀ is C₃₋₈ alkylene;

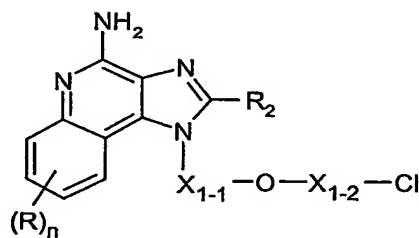
10 A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R₄)-;

Q is selected from the group consisting of a bond, -C(R₆)-, -C(R₆)-C(R₆)-, -S(O)₂-, -C(R₆)-N(R₈)-W-, -S(O)₂-N(R₈)-, -C(R₆)-O-, and -C(R₆)-N(OR₉)-;

V is selected from the group consisting of -C(R₆)-, -O-C(R₆)-, -N(R₈)-C(R₆)-, and -S(O)₂-;

15 W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7.

36. A compound of Formula XXIVa:



XXIVa

wherein:

20 X₁₋₁ and X₁₋₂ are independently selected from the group consisting of C₁₋₁₀ alkylene, C₄₋₁₀ alkenylene, and C₄₋₁₀ alkynylene; wherein the terminal carbon atoms of alkenylene and alkynylene are tetrahedral;

R is selected from the group consisting of alkyl, alkoxy, hydroxy, fluoro, and trifluoromethyl;

n is 0 to 4;

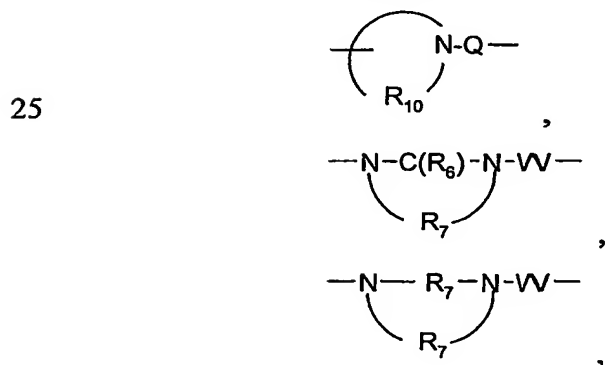
R₂ is selected from the group consisting of

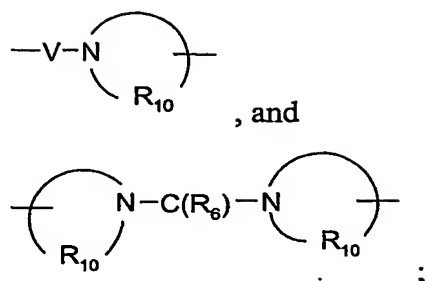
- 5 -R₄,
 -X-R₄,
 -X-Y-R₄, and
 -X-R₅;

10 X is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, heteroarylene, and heterocyclylene wherein the alkylene, alkenylene, and alkynylene groups can be optionally interrupted or terminated with arylene, heteroarylene, or heterocyclylene, and optionally interrupted by one or more -O- groups;

Y is selected from the group consisting of:

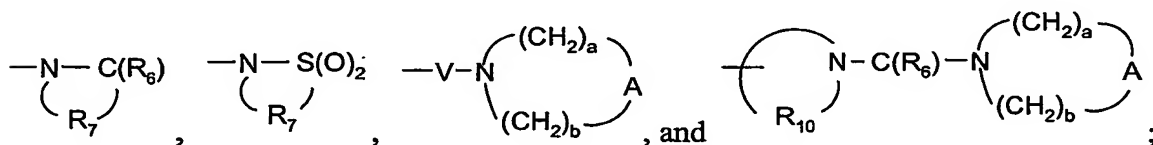
- 15 -O-,
 -S(O)₀₋₂-,
 -S(O)₂-N(R₈)-,
 -C(R₆)-,
 -C(R₆)-O-,
 -O-C(R₆)-,
 20 -O-C(O)-O-,
 -N(R₈)-Q-,
 -C(R₆)-N(R₈)-,
 -O-C(R₆)-N(R₈)-,
 -C(R₆)-N(OR₉)-,





R_4 is selected from the group consisting of hydrogen, alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl wherein the alkyl, alkenyl, alkynyl, aryl, arylalkylenyl, aryloxyalkylenyl, alkylarylenyl, heteroaryl, heteroarylalkylenyl, heteroaryloxyalkylenyl, alkylheteroarylenyl, and heterocyclyl groups can be unsubstituted or substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, hydroxyalkyl, haloalkyl, haloalkoxy, halogen, nitro, hydroxy, mercapto, cyano, aryl, aryloxy, arylalkyleneoxy, heteroaryl, heteroaryloxy, heteroarylalkyleneoxy, heterocyclyl, amino, alkylamino, dialkylamino, (dialkylamino)alkyleneoxy, and in the case of alkyl, alkenyl, alkynyl, and heterocyclyl, oxo;

R_5 is selected from the group consisting of:



R_6 is selected from the group consisting of =O and =S;

R_7 is C_{2-7} alkylene;

R_8 is selected from the group consisting of hydrogen, alkyl, alkoxyalkylenyl, and arylalkylenyl;

R_9 is selected from the group consisting of hydrogen and alkyl;

R_{10} is C_{3-8} alkylene;

A is selected from the group consisting of -O-, -C(O)-, -S(O)₀₋₂-, -CH₂-, and -N(R_4)-;

Q is selected from the group consisting of a bond, -C(R_6)-, -C(R_6)-C(R_6)-, -S(O)₂-, -C(R_6)-N(R_8)-W-, -S(O)₂-N(R_8)-, -C(R_6)-O-, and -C(R_6)-N(OR₉)-;

V is selected from the group consisting of -C(R_6)-, -O-C(R_6)-,

-N(R₈)-C(R₆)-, and -S(O)₂-;

W is selected from the group consisting of a bond, -C(O)-, and -S(O)₂-; and

a and b are independently integers from 1 to 6 with the proviso that a + b is ≤ 7;
or a pharmaceutically acceptable salt thereof.

5

37. The compound or salt of any one of claims 30, 32, or 33 wherein R₁ is linear or branched C₁₋₄ alkyl, aryl, or 5 to 10 membered heteroaryl containing one or two heteroatoms, wherein the alkyl, aryl, or heteroaryl group may be unsubstituted or substituted with one or more substituents.

10

38. The compound or salt of any one of claims 32 through 36, or 37 as dependent on claim 32 or claim 33 wherein R₂ is hydrogen, alkyl, hydroxyalkylenyl, or alkoxyalkylenyl.

15

39. The compound or salt of any one of claims 30 through 38 wherein X₁₋₁ and X₁₋₂ are independently selected from C₂₋₇ alkylene groups.

40. The compound or salt of any one of claims 30 through 39 wherein n is 0.

20